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**BASES FACTEURS HUMAINS POUR LA CONCEPTION
DE SYSTEMES HOMME-MACHINE EN AERONAUTIQUE**

CABIN CREW ON LONG HAUL FLIGHTS

**ELEMENTS OF ACTION PLAN MODEL
AND RELATED CABIN DESIGN ASPECTS**

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Executive abstract

The introduction of human factors concepts into civil aviation design is quite recent and has mainly concentrated on front line actors that are the pilots and air traffic controllers. Although there is a lot more to be said about these populations, the focus is now encompassing other personnel like maintenance people or cabin crew who are the topic of this report.

The objective is to take a global view of the activity of cabin crew for long haul flights. The focus is on the understanding of the design process of the cabin that forms the working environment and to the training that they receive. This analysis substantiate gaps in the knowledge base that are necessary to ensure that human factor aspects are appropriately covered in those two areas which are complementary.

Taking into account the dynamic of a long haul flight requires looking also into the preparation phase until the arrival at the hotel of destination. Interviews have been conducted mainly with chief pursers and trade unions representatives who have the benefit of years of experience and are able to reflect on their work. These interviews were instrumental in developing the early bases for a cognitive model of a cabin crew.

The identification of the different components of this model has taken place within a co-operative contextual framework. The importance of human senses has been highlighted for the monitoring function of the activity, the activation of plans and their control. Construction of these plans of action has been evidenced through the training and day to day practice. They are complemented over the years by experts actions plans that are assimilated thanks to the act of culture sharing between members of the cabin crew community. Because of the limitations of the individual monitoring, the focus has been laid on the role of the collective. The central figure of chief purser in its function of maintaining co-operation has been highlighted. Some thoughts on cabin-cockpit crew interaction are proposed.

Based on this work, leading trails have been elaborated. Suggestions for further developments and complementary work are described. Of particular importance is the use of scenarios to validate choices of cabin partitioning and further usage for training. The prime objective is to regroup safety referential and commercial referential through a reorganisation of training methods. The aim is to combine those two aspects into a coherent training that identifies the way action plans combine. The experience feedback of the airline is useful to feed the development of these scenarios that will benefit both the airlines and the aircraft manufacturers.

The on-going evolutions for cabin crews as well as for cabin designs that are the results of economical and cultural changes are creating new risks. This is discussed in the light of existing constraints, especially those of cabin design certification process.